SCREENING SITE INSPECTION WORK PLAN

OF

CABOT LANDFILL

(ARD983269275)

Prepared By

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Region VI

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PREFACE

This Screening Site Inspection Work Plan was prepared by Ecology and Environment, Inc. for the Environmental Protection Agency under Contract Number 68-01-7347.

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OF

CABOT LANDFILL

TABLE OF CONTENTS

FIGURES

TABLES

1. INTRODUCTION

The Ecology and Environment, Inc. (E & E) Region VI Field Investigation Team (FIT) was tasked by the U. S. Environmental Protection Agency (EPA) under Technical Directive Document (TDD) F06-9011-17 to develop the Work Plan for the Screening Site Inspection (SSI) of Cabot Landfill (ARD983269275) in Cabot, Lonoke, County, Arkansas.

1.1 SCREENING SITE INSPECTION OBJECTIVES

The SSI evaluates the potential risks associated with hazardous waste generation, storage and disposal at the site. It expands upon data collected during the Preliminary Assessment (PA) and identifies data gaps. Information obtained during the SSI supports the management decision of whether the site proceeds to the Listing Site Inspection (LSI) or receives the classification of No Further Action under the Superfund Amendments and Reauthorization Act (SARA).

1.2 SITE DESCRIPTION AND HISTORY

Cabot Landfill is located 1/4 mile west of the north end of Willie Ray Road in Cabot, Lonoke County, Arkansas. The legal description of the landfill property is Lot 1, Lot 2 and the southwest quarter of Lot 5 of Section 6, Township 4 North, Range 9 West. The geographical coordinates are 34°59'45" north latitude and 92°01'00" west longitude (Figure 1) (Ref. 1, p. 1).

The landfill (Figure 2) was primarily used for the disposal of domestic, commercial and institutional wastes. The site was purchased by the City of Cabot for use as a municipal landfill. The area of the site is 118.25 acres. The State permitted 6.4 acres for landfill use in 1975 and approved an additional 8.5 acres in 1981. A state inspection (June 24, 1980) found that the landfill had extended beyond its permitted or approved boundaries. The actual size of the landfill is not known (Ref. 1, p. 1).

Cabot Landfill was cited by the State for exceeding permitted boundaries, leachate problems and overall poor conditions. A state inspection on February 19, 1981 revealed 34 55-gallon drums. The majority of the drums were labeled paint stripper. Several drums were bulging at the ends. The shipping address for the drums was Falcon Jet of Little Rock, Arkansas. One drum was labeled Dreamline Manufacturing, Cabot, Arkansas. The drum was labeled lacquer sealer and had been burned. Two drums of Penvalt E-Z-Strip were resting on their sides and leaking. There was also one drum of adhesive that had been leaking (Ref. 1, pp. 1-2). The drums were removed from the landfill by the depositor at the request of the City of Cabot (Ref. 2).

A resident near the landfill stated that there is an abandoned well beneath the landfill. He also claimed that there are springs located in the landfill. A State agent suspected that this was the cause of the leachate problem (Ref. 1, p. 2). The abandoned well belonged to a

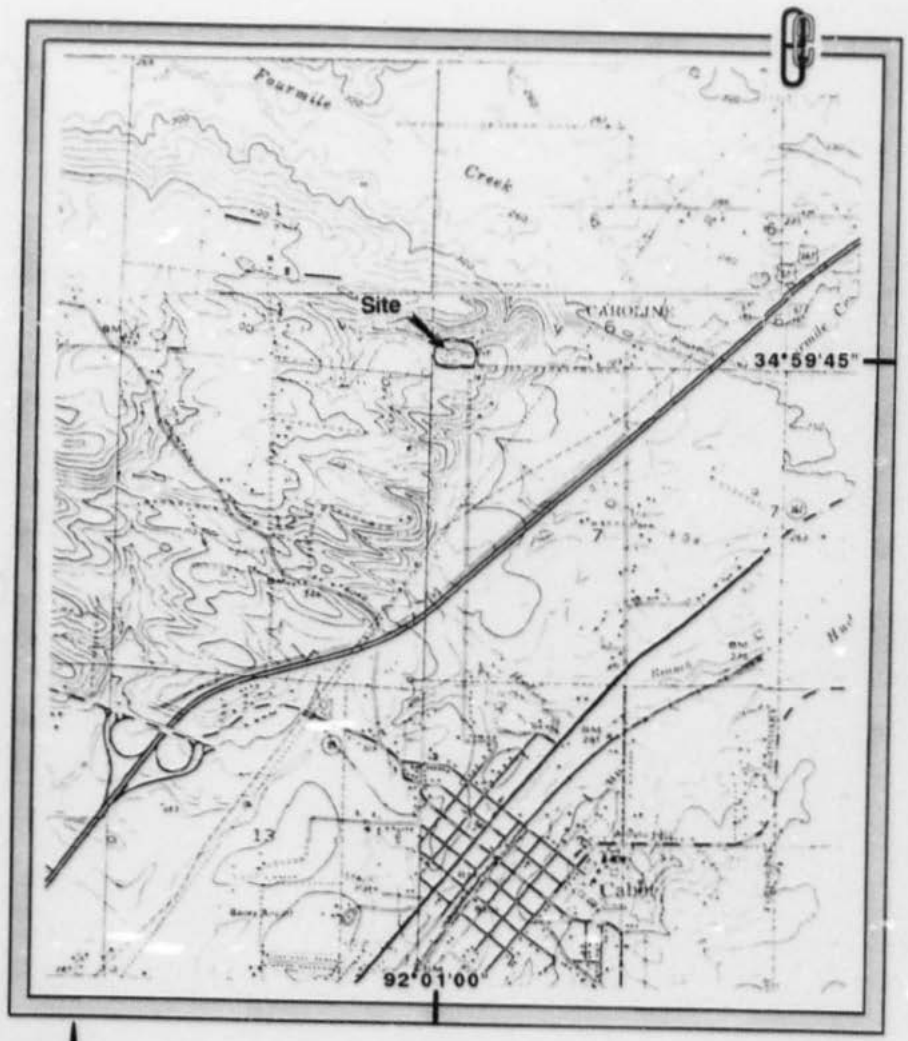


FIGURE 1
SITE LOCATION MAP
CABOT LANDFILL
CABOT, ARKANSAS
ARD983269275

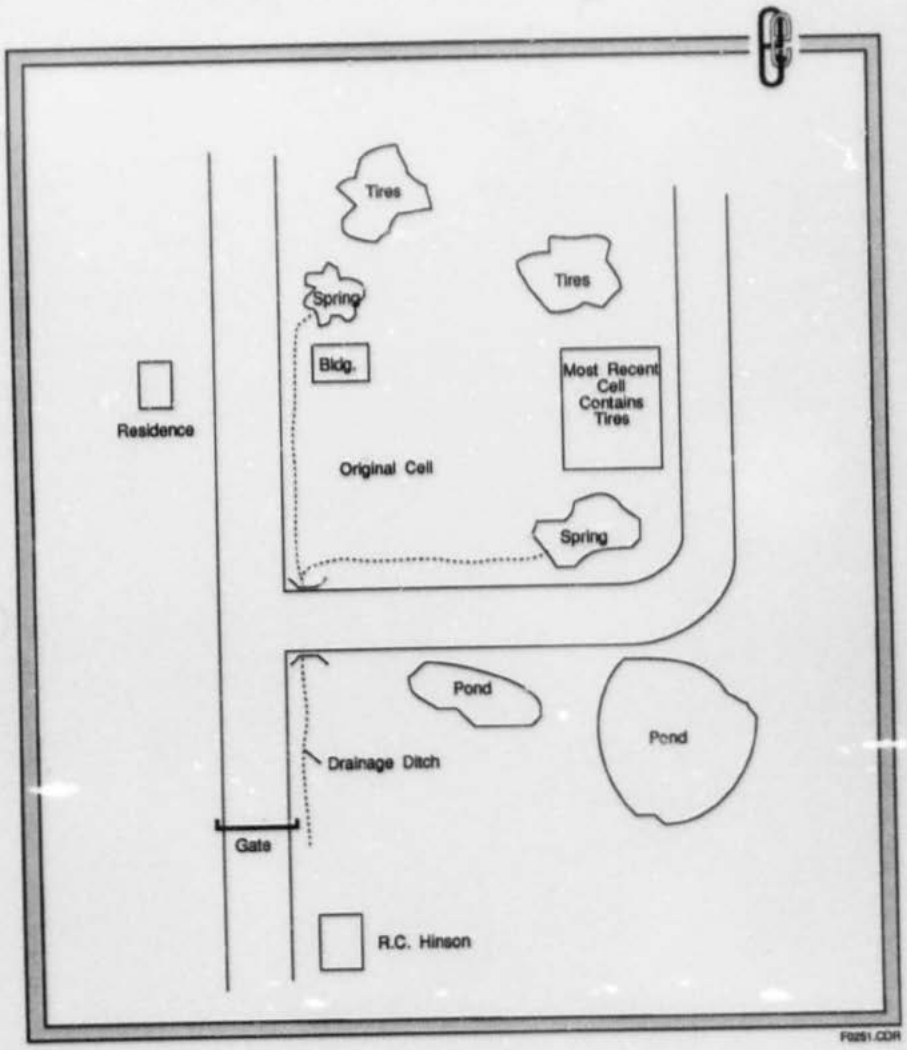


FIGURE 2
SITE SKETCH
CABOT LANDFILL
CABOT, ARKANSAS
ARD983269275

Not to Scale

farmhouse (previous owner). The farmhouse was demolished and deposited in the landfill. The well was plugged and is not located in either of the landfill's cells (Ref. 2).

Wastes disposed at the site were supposed to be covered daily with six inches of compacted soil. A final cover (two feet of compacted soil and four inches of topsoil) was supposed to be applied and seeded at closure. The landfill was 75% closed by December 22, 1986. Final closure was scheduled for September 15, 1987 by the Arkansas Department of Pollution Control and Ecology (ADPC&E) (Ref. 1, p. 1).

2. NON-SAMPLING DATA

The FIT PA of Cabot Landfill was submitted to the EPA on October 31, 1990. The PA consisted of a search of EPA files, background data collection and target identification (Ref. 1).

The FIT on-site reconnaissance inspection was conducted on January 26, 1991 to identify potential waste sources, collect background data, identify targets and formulate the sampling plan. A photographic log of the inspection is attached as an Appendix to this Work Plan.

The following sections briefly characterize sources and migration pathways, and identify background and site environmental data that remain to be collected or verified during the SSI.

2.1 SOURCE WASTE CHARACTERIZATION

The only potential on-site source is the landfill itself. There are no known CERCLA-defined wastes. This will be addressed during sampling.

2.2 GROUND WATER PATHWAY

Cabot Landfill appears to exist upon soils of the Midway Group (Tertiary Period). The Midway Group is defined as a clay confining layer which does not yield water to wells. The Midway Group is underlain by Paleozoic rocks, undifferentiated sandstones, shales, limestones and dolomites. This layer generally yields less than 10 gallons a minute to wells (Ref. 3, Figure 3.0-1). Test hole 9 (NW1/4, NE1/4, NW1/4, Sec. 18, T.4N, R.9W) (Lonoke County) exhibits these characteristics (Ref. 4, p. 31). Primary drinking water standards are exceeded by wells in the area which utilize Tertiary aquifers (Ref. 3, Figure 5.0-1).

The fact that the wells in the area are few, low yielding, and of poor quality reduces the importance of the ground water pathway as an area of concern (Ref. 2; Ref. 3; Ref. 4).

2.3 SURFACE WATER PATHWAY

Leachate from the landfill could enter Four Mile Creek, which runs adjacent to the landfill and travels through an unpopulated area (Ref. 1).

2.4 SOIL EXPOSURE PATHWAY

Entrance to the landfill is inhibited by a single gate which blocks the private road to the site. The location is remote and the landfill is not fenced or guarded.

The ground cover is thick and healthy. Stressed vegetation could not be found anywhere on-site.

2.5 AIR PATHWAY

During the on-site reconnaissance inspection, the FIT noted that there was no odor of municipal waste. The site does not appear to be a source of volatile or particulate air contamination.

3. SAMPLING DATA

Analytical data and the proposed sampling methodology are described below.

3.1 EXISTINC ANALYTICAL DATA

No analytical data could be located.

3.2 SAMPLING METHODOLOGY

The pathway of greatest concern is the surface water. There is a low probability of migration via the air, soil and ground water routes. The objectives of sampling are threefold: to identify any on-site contamination and determine contaminant migration through the collection of soil and surface water samples; to determine whether Cabot Landfill poses a threat to any surface water body; and to determine whether any hazards to workers and nearby residents exist.

The FIT proposes the collection of six surface water, seven soil and three ground water samples, including background and required duplicates (Figure 3) (Table 1). A trip blank will be included with each set of water samples.

Water and soil samples will be collected to determine whether soil contamination exists, whether off-site migration is a potential problem and whether the closure of the landfill has been successful.

All field activities will be conducted according to FIT Field Sampling Standard Operating Procedures.

4. PROJECT MANAGEMENT

Key personnel, level of effort and community relations are addressed below.

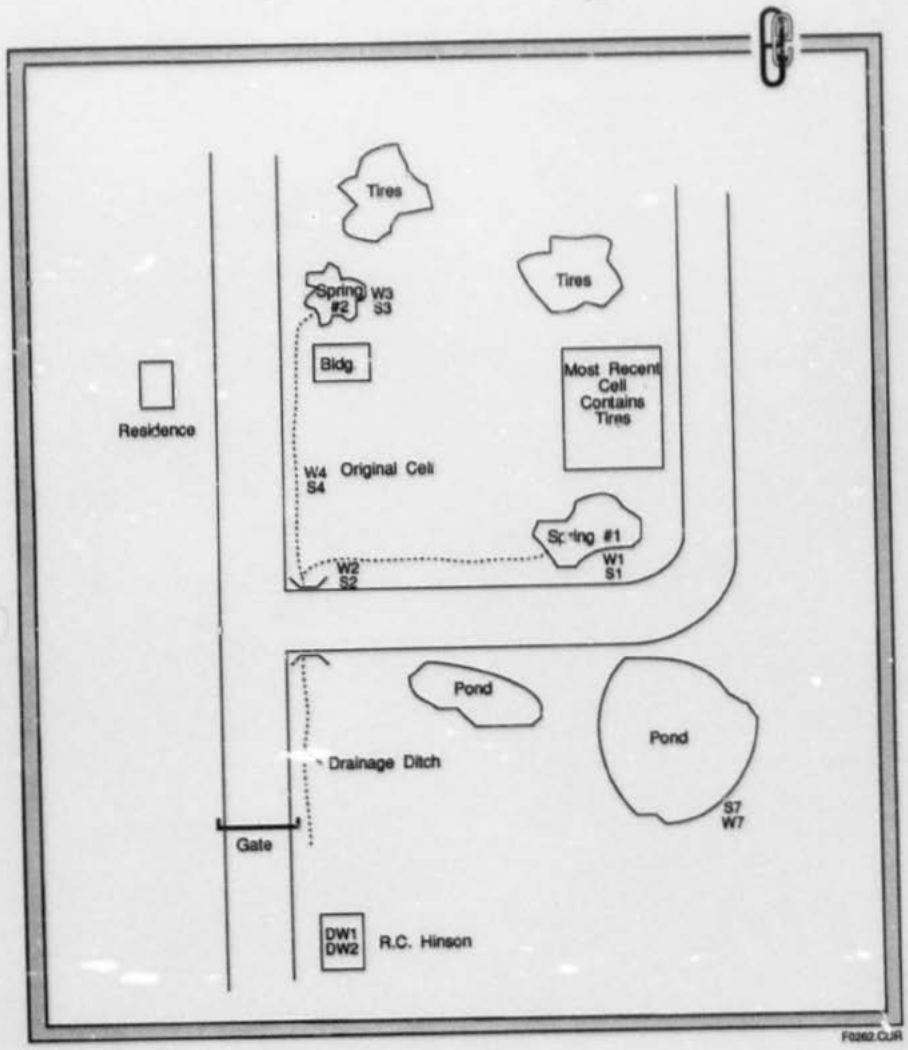


FIGURE 3
SAMPLE LOCATION MAP
CABOT LANDFILL
CABOT, ARKANSAS
ARD983269275

Not to Scale

TABLE 1
SAMPLING LOCATIONS AND RATIONALE

SAMPLE NUMBER	LOCATION	RATIONALE
W1	Spring #1	To locate soluble contaminants at source.
W2	Stream #1	To identify any soluble contaminants that are capable of migration from the source. Downgradient.
W3	Spring #2	To locate soluble contaminants at source.
W4	Stream #2	To locate soluble contaminants downgradient.
W5	To be determined	Duplicate. Quantity of water will be the limiting factor.
W6	Trip Blank	QA/QC control.
W7	Stock Pond	To determine if the pond has been subjected to leachate contamination.
S1	Spring #1	At source. To determine if the soil holds contaminants that may be attributed to the landfill.
S2	Stream #1	Downgradient. To determine if there has been any migration of contaminants from the source.
S3	Spring #2	At source. To determine if the soil holds contaminants that may be attributed to the landfill.
S4	Stream #2	Downgradient. To determine if there has been any migration of contaminants from the source.
S5	To be determined	Duplicate. At the location of W5.
S6	To be determined	Background.
S7	Stock Pond	To determine if the pond has been subjected to leachate contamination.
DW1	Domestic Well	(b) (6)
DW2	Domestic Well	Duplicate.
DW3	Domestic Well	Location to be determined. To be used as a background sample.
DW4	Trip Blank	QA/QC control.

4.1 KEY PERSONNEL

The FIT Project Leader for this investigation is Michael Watson. The Project Leader is responsible for overseeing sampling and off-site activities. Other team members include the Site Safety Officer, who is responsible for directing the health and safety protocol, and three additional FIT members who will conduct sampling and decontamination.

The EPA Region VI Project Officer for this investigation is Bartolome J. Cannellas.

4.2 LEVEL OF EFFORT

The Level of Effort (LOE) hours are listed in Table 2. Sampling is scheduled for the week of March 4, 1991.

4.3 COMMUNITY RELATIONS

Persons requesting site information will be instructed to submit a Freedom of Information Act Request to: Freedom of Information Officer, U.S. EPA Region VI, 1445 Ross Avenue, Dallas, Texas 75202-2733. Reporters will be instructed to contact the Office of External Affairs at 214/655-2200.

TABLE 2

LEVEL OF EFFORT HOURS

Labor Task	Estimated LOE Hours
File Search	12
Review of File Information and Preparation of the Narrative Summary of Data Gaps	24
On-Site Reconnaissance Inspection	32
Develop Work Plan	32
Collect HRS Non-Sampling Data	32
Collect HRS Sampling Data (Field Sampling)	200
QA/QC of CLP Data	40
Prepare Final Report and HRS PreScore	80
Editing	24
Drafting	16
Miscellaneous	8
	500
Plus 10% Contingency	50
TOTAL EFFORT	550

Samples Required

7 Low Soil Samples
11 Low Water Samples
18 Total Samples

REFERENCES

1 Preliminary Assessment of Cabot Landfill, Lonoke County, Arkansas. Prepared by Ecology and Environment, Inc. for EPA Region VI. October 31, 1990.

2 Record of Communication. Cabot Landfill. From: Michael Watson and Julie J. Koke, Ecology and Environment, Inc. To: Andy Deadmon, Public Works Supervisor, City of Cabot, Arkansas. January 25, 1991. ARD983269275.

3 Ground Water Problems in Arkansas. United States Department of Interior Geological Survey. Little Rock, Arkansas. 1985.

4 Ground Water Resources of Parts of Lonoke Prairie and White Counties, Arkansas. Water Resources Circular No. 5. United States Geological Survey. 1957.

ATTACHMENT A

PHOTOGRAPHS

Photo No. 1A

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD983269275

Photographer/Witness Michael Watson / Julie Kohr

Date 1/25/91 Time 11:00 Direction

Description 180 degree scan (NW to NE) of both cells (1 of 4)

Page 1

Of 14

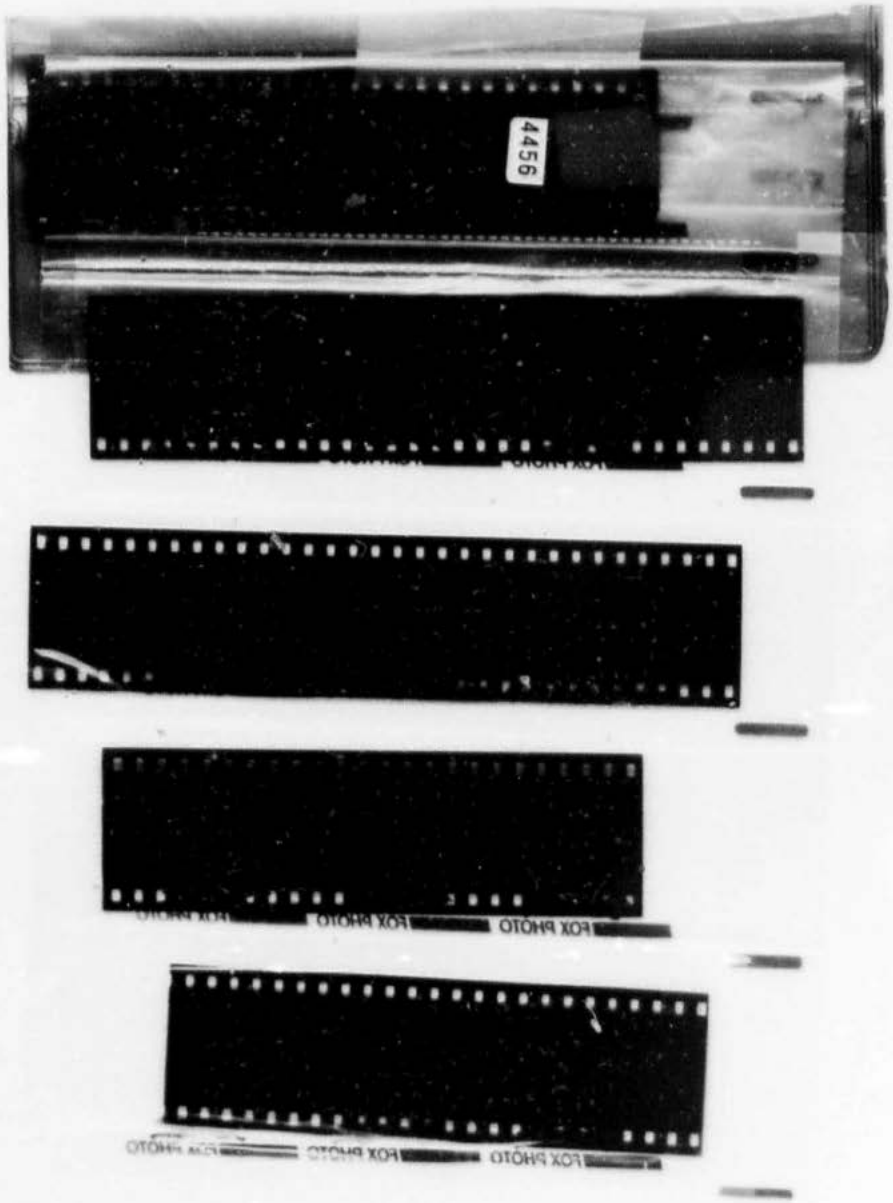
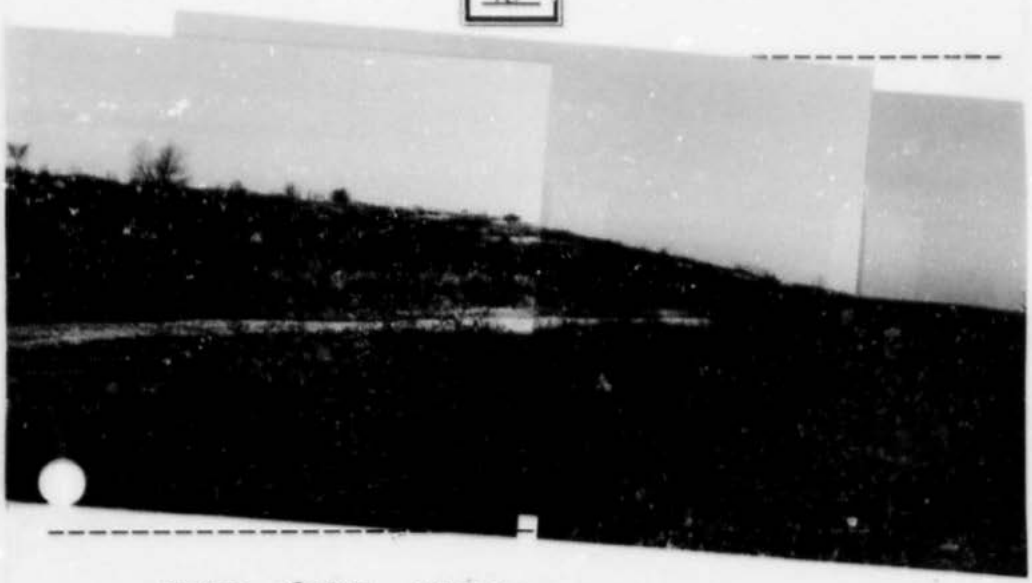


Photo No. 12



Site Name CABOT LANDFILL

Location CABOT / Lonoke Arkansas

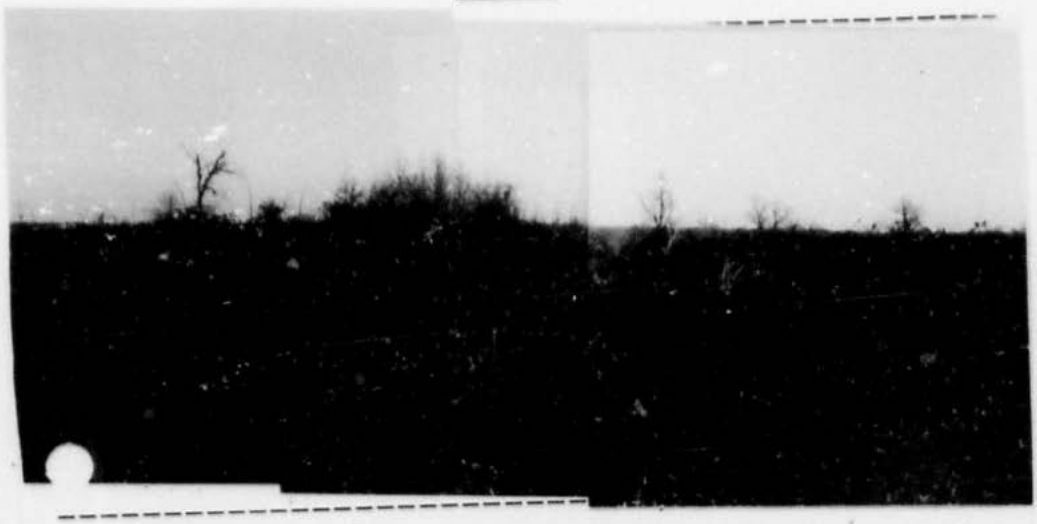
CERCLIS # ARD98326975

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 11:00 Direction

Description 180 degree scan (NW to NE) of both cells (2 of 4)

Photo No. 16



Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD983269275

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 11:00 Direction

Description 180 degree scan (NW to NE) of both cells (3 of 4)

Page 3

Of 14

Photo No. 10

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD98326375

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 11:00 Direction

Description 180 degree scan (NW to NE) of both cells (4 of 4).

Site Name Cabot Landfill
Location Cabot / Lonoke / Arkansas
CERCLIS # ARD 98 526 9275

Photo No. 2

Photographer/Witness Michael Water / Julie Keke
Date 1/25/91 Time 11:05
Direction NE
Description Drainage ditch contents originated at spring (intermittent)

Photo No. 3

Photographer/Witness Michael Water / Julie Keke
Date 1/25/91 Time 11:30
Direction WEST
Description Abandoned Tubes

Photo No. 4A

Site Name C.I.T Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD983269275

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 12:00 Direction West To East 180°

Description West Recent cell (capped in 1985) (1 of 3).

Photo No. 13

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD982269275

Photographer/Witness Michael Watson / Julie Acke

Date 1/25/91 Time 12:00 Direction West To East 180°

Description West Recent cell (capped in 1985)

12 of 31.

Page 7

Of 14

Photo No. 4C

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD983269275

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 12:00 Direction West To East 180°

Description Most Recent cell (capped in 1985) (3 of 3).

Photo No. 5A

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD983969275

Photographer/Witness Michael Watson / Julie Kelk.

Date 1/25/91 Time 12:25 Direction W To E

Description General Area of Spring & Willow Trees (1 of 3)

Photo No. 5B

Site Name Cabot Landfill

Location Cabot / Lonoke / Arkansas

CERCLIS # ARD982269275

Photographer/Witness Michael Watson / Julie Koke

Date 1/25/91 Time 12.25 Direction West To East

Description General Area of Spring & Willow Trees. (2 of 3)

Page 10

Of 19

Photo No. 5C

Site Name Cabot Landfill

Location Cabot/Loucke/Arkansas

CERCLIS # ARD983269275

Photographer/Witness Michael Watson / Julie Kake

Date 4/25/91 Time 12:25 Direction West To East

Description General Area of Spring & Willow Trees (3 of 3).

Photo No. 6

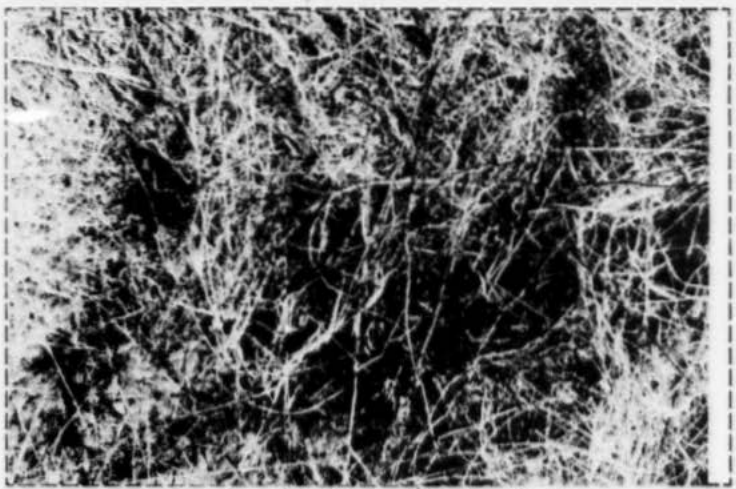
Site Name: Cabot Landfill

Location: Cabot/Lonoke/Arkansas

CERCLIS #: ARES2G9275

Photographer/Witness Michael Watson/Julie Keke
Date 1/25/91 Time 12:30 Direction North
Description Spring Source (Iris'd willow saplings)

Photo No. 7



Photographer/Witness Michael Watson/Julie Keke
Date 1/25/91 Time 12:30 Direction North
Description Spring Closeup

Photo No. 8

Site Name: Cabot Landfill

Location: Cabot / Lonoke / Arkansas

CERCLIS #: ARD982692775

Photographer/Witness Michael Watson / Julie Koke
Date 1/25/91 Time 12:00 Direction South
Description Drainage pathway of spring

Photo No. 9

Photographer/Witness Michael Watson / Julie Koke
Date 1/25/91 Time ~12:00 Direction South
Description Pond resulting from spring

Photo No. 10

Site Name: Cabot Landfill

Location: Cabot / Lonoke / Arkansas

CERCLIS #: ARD982692775

Photographer/Witness Michael Watson / Julie Keke

Date 1-25-91 Time ~12:30

Direction South

Description Stock Pond on site (not a result of the landfill used by deer)

Photographer/Witness M. Watson / Julie Keke

Date 1-25-91 Time ~11:50

Direction East

Description Residential Area (entrance to Landfill

Page 14

Of 14

Photo No. 11